

**ABSTRACT OF THE DISCLOSURE**

In one illustrative embodiment, a system is comprised of a semiconductor processing tool, an etcher, a metrology tool, and a controller. The semiconductor processing tool is capable of forming a process layer above a semiconducting substrate. The etcher is capable of removing at least a portion of the process layer. The metrology tool is capable of measuring a first depth of the etch at a first location in a first preselected region of the semiconducting substrate. The controller is capable of comparing the first depth to a desired depth, and varying the temperature of a subsequently processed semiconducting substrate in a region corresponding to the first preselected region in response to the first depth being different from the desired depth.